

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/061495 A1

(51) International Patent Classification⁷: **C07D 453/02**, (74) Agent: **ASTRAZENECA**; Global Intellectual Property, A61K 31/439, A61P 25/00 S-151 85 Södertälje (SE).

(21) International Application Number:
PCT/SE2004/001943

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:
20 December 2004 (20.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/531,648 22 December 2003 (22.12.2003) US

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except US): **ASTRAZENECA AB** [SE/SE]; S-151 85 Södertälje (SE).

(72) Inventors; and

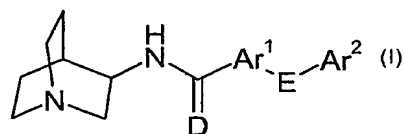
(75) Inventors/Applicants (for US only): **ERNST, Glen** [US/US]; AstraZeneca Wilmington, P.O. Box 15437, Wilmington, Delaware 19850-5437 (US). **JACOBS, Robert** [US/US]; AstraZeneca Wilmington, P.O. Box 15437, Wilmington, Delaware 19850-5437 (US). **PHILLIPS, Eifion** [GB/US]; AstraZeneca Wilmington, P.O. Box 15437, Wilmington, Delaware 19850-5437 (US).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **NICOTINIC ACETYLCHOLINE RECEPTOR LIGANDS**



(57) Abstract: Compounds of formula (I), wherein D, Ar¹, E and Ar² are as defined in the specification, processes for preparing them, pharmaceutical compositions containing them and their use in therapy, especially in the treatment or prophylaxis of psychotic and intellectual impairment disorders.

WO 2005/061495 A1